

ABSTRACT

5 A hollow portion (7) of a spindle 5 through which a  
draw bar (9) and a disc spring assembly (11) are inserted  
has a closed chamber structure and constitutes an oil  
pool chamber in which a lubricating oil is filled. The  
bearing portions (21, 39) for supporting the draw bar (9)  
in the oil pool on both sides thereof have the same inner  
diameter so that the volume of the oil pool chamber does  
10 not change when the draw bar (9) is moved forward and  
backward. As a result, the lubricating oil is not pushed  
out of the oil pool chamber. Thus, a spindle unit can be  
provided in which a clamping means, consisting of the  
draw bar (9) and the disc spring assembly (11), for  
15 clamping a tool or a workpiece pallet at the forward end  
of the spindle can be reliably lubricated, so that the  
friction on and the breakage of the clamping means is  
reduced and that the service life of the unit is  
lengthened.